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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/516,695

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Takuo Sugioka

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EXAMINER

ANTHONY, JOSEPH DAVID

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/516,695

Applicant(s)

SUGIOKA ET AL.

Examiner

Joseph D. Anthony

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/US)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Paper No(s)/Mail Date _____
- 6) ☐ Other: _____
- 7) ☐ Notices of Informal Patent Application

DETAILED ACTION

Election/Restrictions

Claims 9 and 16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/15/08.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-15 and 17-20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Haraguchi et al. U.S. Patent Number 5,834,551.

Haraguchi et al. teach a composite of a thermosetting resin with a metallic oxide, prepared by a process which comprises subjecting a metal alkoxide containing a silicon alkoxide and/or a low condensate thereof to hydrolysis and polycondensation in a solution of a phenolic resin and/or thermosetting resin containing a phenolic resin while effecting the removal of the solvents and/or curing reaction of the resins to incorporate a particulate metallic oxide having an average particle diameter of from 0.01 to 5 .mu.m homogeneously in said thermosetting resin with a good interfacial wettability without causing macroscopic phase separation. Thus, the present invention can provide a cured or uncured composite of a thermosetting resin with a metallic oxide which can be used as a molding material, sliding material, friction material, coating material, film-forming

material, etc, see abstract. The said composites can be added to epoxy resins to be cured into a final product, see Example 18.

Applicant's claims are deemed to be anticipated over the disclosure of the patent. In the alternative, Haraguchi et al. may differ from applicant's claimed invention in that it is unclear if there is a direct teaching (i.e. by way of an example) to a polyphenol resin that meets applicant's claimed limitation of having: "a structure that aromatic units each having at least one phenolic hydroxyl group are *connected to one another through an organic unit containing two or more carbon atoms*" [emphasis added]. It would have been obvious to one having ordinary skill in the art to use the broad disclosure of the patent as motivation to actually use a polyphenol resin that meets applicant's claimed limitation of having: "a structure that aromatic units each having at least one phenolic hydroxyl group are *connected to one another through an organic unit containing two or more carbon atoms*" since such polyphenol resins fall directly within the patent's generic disclosure to the use of phenolic resins.

Claims 1-8, 10-15, and 17-20 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Goda et al. U.S. Patent Number 6,441,106 or Lee et al. U.S. Patent Number 6,337,363.

Goda et al. teach a curing agent for epoxy resin containing a siloxane-modified phenol resin (3) obtained by dealcoholization condensation reaction between a phenol resin (1) and a hydrolyzable alkoxysilane (2). The present invention further provides an epoxy resin composition comprising an epoxy resin and the above-mentioned curing

agent for epoxy resin. The present invention further provides a method for preparing a siloxane-modified phenol resin (3) characterized by subjecting a phenol resin (1) and a hydrolyzable alkoxysilane (2) to dealcoholization condensation reaction, see abstract.

Lee et al. teach an epoxy resin composition with a non-halogen, non-phosphorus flame retardant, which comprises (a) 100 parts by weight of an epoxy resin; (b) 40-60 parts by weight of a phenolic novolac hardener; and (c) 5-60 parts by weight of a silica-novolac hybrid resin solution as a flame retardant, see abstract.

Applicant's claims are deemed to be anticipated over the individual disclosures of Goda et al. and Lee et al.. In the alternative, Goda et al. and Lee et al.. may both differ from applicant's claimed invention in that it is unclear if there is a direct teaching (i.e. by way of an example) to a polyphenol resin that meets applicant's claimed limitation of having: "a structure that aromatic units each having at least one phenolic hydroxyl group are *connected to one another through an organic unit containing two or more carbon atoms*" [emphasis added]. It would have been obvious to one having ordinary skill in the art to use the broad individual disclosures of each patent as motivation to actually use a polyphenol resin that meets applicant's claimed limitation of having: "a structure that aromatic units each having at least one phenolic hydroxyl group are *connected to one another through an organic unit containing two or more carbon atoms*" since such polyphenol resins fall directly within each patents' generic disclosure to the use of phenolic resins.

Claims 1-8 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akamatsu U.S. Patent Number 5,177,157 or Suzuki et al. U.S. Patent Number 6,265,066.

Akamatsu teaches a two-step process for the preparation of a silicone resin-modified phenolic resin is disclosed wherein an alkoxysilane-modified phenolic resin is first prepared by reacting an alkoxysilane with a phenolic resin. In a subsequent step, the alkoxysilane-modified phenolic resin is hydrolyzed and condensed by heating and stirring it with water. The resulting silicone resin-modified phenolic resin, which is free of diorganopolysiloxane units, has excellent heat resistance and excellent electrical insulating properties, see abstract.

Suzuki et al. teach a wet friction material contains a fibrous base, a filler, a friction adjuster and a binder. The binder contains a material having siloxane bond. For example, the binder is a product of hardening of a hydrolytic solution of a silicon alkoxide, see abstract, column 5, lines 13-41 and column 7, line 56 to column 8, line 7.

Akamatsu and Suzuki et al. both differ from applicant's claimed invention in that it seems that there is not a direct teaching (i.e. by way of an example) to a polyphenol resin that meets applicant's claimed limitation of having: "a structure that aromatic units each having at least one phenolic hydroxyl group are *connected to one another through an organic unit containing two or more carbon atoms*" [emphasis added]. It would have been obvious to one having ordinary skill in the art to use the broad individual disclosures of each patent as motivation to actually use a polyphenol resin that meets applicant's claimed limitation of having: "a structure that aromatic units each having at

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least one phenolic hydroxyl group are *connected to one another through an organic unit containing two or more carbon atoms*" since such polyphenol resins fall directly within each patents' generic disclosure to the use of phenolic resins.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-7 10-15 and 17-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2-5 of copending Application No. 11/197,587. Although the conflicting claims are not identical, they are not patentably distinct from each other because there is massive overlap in the claimed subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-8, 10-15 and 17-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 11/664,818. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the copending application are deemed to be generic to the pending claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Prior-Art Cited But Not Applied

Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571) 272-1498. The centralized FAX machine number is (571) 273-8300. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.

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/Joseph D. Anthony/
Primary Examiner, Art Unit 1796
3/31/08